

The invention claimed is:

1. A composite wheel, comprising:

a wheel having an outer surface and a centrally located hub aperture extending through the wheel; and

a wheel cap having a body portion and a plurality of flexibly resilient fingers extending substantially orthogonal to the body portion, each finger having a pair of side walls and an integrally formed outer wall, the outer wall including a centrally located portion and rounded abutment portions located proximate the side walls.

2. The composite wheel of claim 1, wherein the centrally located portion of each finger includes a first radius of curvature, and wherein the abutment portion of each finger includes a second radius of curvature different than the first radius of curvature.

3. The composite wheel of claim 1, wherein the second radius of curvature is less than the first radius of curvature.

4. The composite wheel of claim 3, wherein the hub aperture of the wheel includes an interior wall and an annular locking ring extending inwardly from the interior wall, each finger includes a locking nub located along a length thereof, and wherein each finger is flexible between an assembly position, wherein the locking nub of each finger is aligned with the annular locking ring, and an assembled position, wherein the locking nub of each finger is positioned behind the locking ring.

5. The composite wheel of claim 4, wherein the second radius of curvature of each finger is substantially similar to an inner radius of the annular locking ring when the fingers are in the assembly position.
6. The composite wheel of claim 5, wherein the fingers are flexed inwardly when in the assembled condition.
7. The composite wheel of claim 6, wherein the body portion of the wheel cap is substantially planar.
8. The composite wheel of claim 7, wherein the body portion of the wheel cap includes a circumferentially extending rim that abuts the outer surface of the wheel when the fingers are in the assembled position.
9. The composite wheel of claim 8, further including:
a flexibly resilient ring abutting an interior surface of each of the fingers and biasing the fingers radially outwardly.
10. The composite wheel of claim 1, further including:
a flexibly resilient ring abutting an interior surface of each of the fingers and biasing the fingers radially outwardly.

11. The composite wheel of claim 1, wherein the hub aperture of the wheel includes an interior wall and an annular locking ring extending inwardly from the interior wall, each finger includes a locking nub located along a length thereof, and wherein each finger is flexible between an assembly position, wherein the locking nub of each finger is aligned with the annular locking ring, and an assembled position, wherein the locking nub of each finger is positioned behind the locking ring.

12. The composite wheel of claim 11, wherein the second radius of curvature of each finger is substantially similar to an inner radius of the annular locking ring when the fingers are in the assembly position.

13. The composite wheel of claim 1, wherein the fingers are flexed inwardly when in the assembled condition.

14. The composite wheel of claim 1, wherein the body portion of the wheel cap includes a circumferentially extending rim that abuts the outer surface of the wheel when the fingers are in the assembled position.

15. A wheel center cap for a vehicle wheel, comprising:

a substantially planar body portion; and

a plurality of flexibly resilient fingers extending substantially orthogonal to the body portion and adapted to be received within a central aperture of a wheel, each finger having a pair of side walls and an integrally formed outer wall, the outer wall including a centrally located

portion defining a first radius of curvature, and rounded abutment portions located proximate the side walls and having a second radius of curvature that is less than the first radius of curvature.

16. The wheel center cap of claim 15, wherein each finger includes a locking nub located along a length thereof, and wherein each finger is flexible between an assembly position and an assembled position.

17. The wheel center cap of claim 16, wherein the second radius of curvature of each finger is adapted to be substantially similar to an inner radius of a raised locking ring within the central aperture of the wheel when the fingers are in the assembly position.

18. The wheel center cap of claim 17, wherein the fingers are flexed inwardly when in the assembled condition.

19. The wheel center cap of claim 13, wherein the body portion includes a circumferentially extending rim that is adapted to abut the outer surface of the wheel when the fingers are in the assembled position.

20. The wheel center cap of claim 15, wherein the second radius of curvature of each finger is adapted to be substantially similar to an inner radius of a raised locking ring within the central aperture of the wheel when the fingers are in an assembly position.

21. The wheel center cap of claim 15, wherein the fingers are flexed inwardly when in an assembled condition.

22. A method of assembling a wheel cap within a vehicle wheel, comprising:

providing a wheel having an outer surface and a centrally located hub aperture extending through the wheel, the hub aperture having a first radius;

providing a wheel cap having a body portion and a plurality of flexibly resilient fingers extending substantially orthogonal to the body portion, each finger having a pair of side walls and an integrally formed outer wall, the outer wall including a centrally located portion having a second radius and rounded abutment portions located proximate the side walls and each having a third radius, wherein the third radius is less than the second radius;

aligning the fingers of the wheel cap with the hub aperture of the wheel; and

providing an inwardly directed force to the body portion of the wheel cap, thereby forcing the legs to flex inwardly until the rounded abutment portions of the fingers abut the hub aperture of the wheel assembly.

23. The method claim 22, wherein the step of providing the wheel includes providing an annular locking ring extending from a surface of the hub aperture, the step of providing the wheel cap includes providing each finger with a nub located along a length thereof, and wherein the step of providing the inwardly directed force includes continuing to apply the inwardly directed force until the nub of each finger is seated behind the annular locking ring.